



PO No	Supplier	Line Item No	Ref No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due	
PO039927	ACI001-VC	4	1	Net 30	MT-4140-B-1.000X1.000	4140 Steel Bar 1.000 X 1.000 : AISI 4140N STEEL BAR PER MIL-S-5626, AMS 6382, AMS 6349, AMS 6529 receive ft				24	6/5/2018	12	S077651	Stock	6/4/2018	\$ 20.42 / ft	0			
		6			MT-4140-R4.000	AISI 4140 Round Bar MATERIAL: AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 Rc MAXIMUM ROCKWELL C = 38 Rc SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529				12		12	S077652	Stock	6/4/2018	\$ 90.70 / ft	0			
		7			MT-4140-S-2.750X5.000	4140 Steel Sheet 2.750 X 5.000 : MATL: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft						12	S077653	Stock	6/4/2018	\$ 133.17 / ft	0			
		8			MT-4140-S-1.250X2.000	AISI 4140 Steel Bar : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395				6		6	S077654	Stock	6/4/2018	\$ 35.83 / ft	0			
		10			M303B1.000X2.000	03 Bar 1" X 2" : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE						12		13	S077655	Stock	6/4/2018	\$ 68.92 / ft	0	
		13			MT-4140-S-2.250X3.000	AISI 4140 Steel Sheet 2.250" x 3.000" : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395						12	S077656	Stock	6/4/2018	\$ 74.33 / ft	0			
		14			MT-4140-S-0.375X4.500	AISI 4140 Steel Sheet/Plate MATL: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395						12	S077657	Stock	6/4/2018	\$ 29.50 / ft	0			
									Total:	90		79								



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

## PURCHASE ORDER PO039927

**Supplier:** ACI001-VC  
Acier Ouellette Inc.  
935 Boul. Du Havre  
Valleyfield  
QC  
J6S 5L1 Canada  
Phone: 800 667 4248  
Fax: 450 377 5696

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**PO No:** PO039927  
**PO Date:** 5/17/18  
**Due Date:** 5/22/18  
**Purchase Order Revision:**  
**Revision Date:**  
**Ship-To Contact:** Lavoie, Chantal Phone: clavoie@dartaero.com

*REVISED*

**Via:** Ground  
**Pymt Terms:** Net 30  
**Freight Terms:**  
**Special Comments:**

### Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	M1018R0.187		M1018R0.187 : MATERIAL: AISI 1018-1025 ROUND BAR M1010S20GA AS PER MIL-S-7097 OR ASTM A108 receive ft	Firmed	5/22/18	12 ft	0 ft	12 ft	\$0.125833/ft	\$1.51
2	M304R.313		304 SS Round bar .313 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	5/22/18	12 ft	0 ft	12 ft	\$0.91/ft	\$10.92
3	M304R.500		304 SS roundbar .500 : MATERIAL: AISI 304/316 SS ROUND BAR AS PER ASTM A276 NOTE: AISI 303 NOT ACCEPTABLE receive ft	Firmed	5/22/18	144 ft	0 ft	144 ft	\$2.3345/ft	\$336.17
<b>Line Item Note</b> 12 length of 12 ft										
4	MT-4140-B-1.000X1.000		4140 Steel Bar 1.000 X 1.000 : AISI 4140N STEEL BAR PER MIL-S-5626, AMS 6382, AMS 6349, AMS 6529 receive ft	Firmed	5/31/18	24 ft	0 ft	24 ft	\$20.41666/ft	\$490.00
							24		JUN 14 2018	DAS 11 9-89

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
5	MT-4140-R1.625		AISI 4140 Round Bar MATERIAL: AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 Rc MAXIMUM ROCKWELL C = 38 Rc SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529	Firmed	5/22/18	20 ft	0 ft	20 ft	\$10.291/ft	\$205.82
6	MT-4140-R4.000	CUT TO 7" LENGTH	AISI 4140 Round Bar MATERIAL: AISI 4140 ROUND BAR MINIMUM ROCKWELL C = 20 Rc MAXIMUM ROCKWELL C = 38 Rc SPECIFICATION: ASTM A29, AMS 6349, AMS 6382, AMS 6529	Firmed	5/25/18	12 ft	0 ft	12 ft	\$90.69666/ft	\$1,088.36
<b>Line Item Note</b> 2 pcs of 6 ft										
7	MT-4140-S-2.750X5.000		4140 Steel Sheet 2.750 X 5.000 : MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395 receive ft	Firmed	5/22/18	12 ft	0 ft	12 ft	\$133.16666/ft	\$1,598.00
<b>Line Item Note</b> 2 pcs of 6 ft										
8	MT-4140-S-1.250X2.000		AISI 4140 Steel Bar : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395	Firmed	5/22/18	6 ft	0 ft	6 ft	\$35.8333/ft	\$215.00
9	MT-1144-R0.500		1144 Steel Proof Round Bar 0.500"	Firmed	5/22/18	20 ft	0 ft	20 ft	\$1.1755/ft	\$23.51
10	M303B1.000X2.000		303 Bar 1" X 2" : MATERIAL: AISI 303 SS BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE	Firmed	5/25/18	12 ft	0 ft	12 ft	\$68.91666/ft	\$827.00

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
11	M6061T6B0.375X1.000		6061T6 Bar .375 X 1.00 : MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-200/8 OR AMS-QQ-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221 receive ft	Firmed	5/18/18	40 ft	0 ft	40 ft	\$1.575/ft	\$63.00
12	M4130NS.080		AISI 4130 Steel Sheet : MATERIAL: AISI 4130N STEEL SHEET AS PER OR AS PER AMS 6345 MIL-S-18729 OR AMS 6350 OR AMS 6351	Firmed	5/22/18	18 sf	0 sf	18 sf	\$22.005555/sf	\$396.10
<b>Line Item Note</b> 1 PCS 3 FT X 6 FT										
13	MT-4140-S-2.250X3.000		AISI 4140 Steel Sheet 2.250" x 3.000" : MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395	Firmed	5/22/18	12 ft	0 ft	12 ft	\$74.3333/ft	\$892.00
<b>Line Item Note</b> 2 pcs of 6 ft										
14	MT-4140-S-0.375X4.500		AISI 4140 Steel Sheet/Plate MAT'L: AISI 4140 / 4142 STEEL SHEET OR PLATE MINIMUM ROCKWELL C = 28 Rc MAXIMUM ROCKWELL C = 32 Rc ASTM A829, AMS 6395	Firmed	5/30/18	12 ft	0 ft	12 ft	\$29.50/ft	\$354.00
<b>Line Item Note</b> 2 pcs of 6 ft										
<b>Grand Total:</b> \$6,501.39										

## Order Notes

## Procurement Quality Clauses

- A005 right of entry
- A012 chemical and physical test report
- A016 personnel qualification
- A017 raw material identification (as applicable)
- A026 certification of material conformance
- A041 quality management system
- A042 part notification by supplier
- A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dart aerospace.com](http://www.dart aerospace.com) for further explanation.



Plex 5/17/18 2:39 PM dart.lavoie.chantal







# DELIVERY - CLIENT

C000090241



## **ACIER OUELLETTE INC.**

935,

Boul. du Havre

Salaberry de Valleyfield (Québec) J6S 5L1

Tél.: 450-377-4248 Mtl: 514-336-4248 Ext.: 800-667-4248

Fax: 450-377-5696 Mtl: 514-336-4246 Ext.: 866-456-4242

Mc

Customer N° CLI0001056  
Date 2018/05/17  
**Delivery date 2018/06/04**

**Your order N° 39927**  
Processed by Eric Kahlert

**Billed to**  
DART AEROSPACE LTD

1270 , ABERDEEN ST.  
HAWKESBURY, Ontario, K6A 1K7

, Ontario,

Att : CHANTAL LAVOIE Tél.: 613-632-5200

CARRIER

Credit Termes Net 30 Days

**Instruction** F-M

**Delivery Route** 5

**Page** 4

**Product Description**

**Weight** 528.84

**Page** 4

**Qty** 12.00

**Internal Use Only**

**U/M** PI

**Customer N°** CLI0001056

7 ROUND 4140 ANNEALED 4 (R)

**Date** 2018/05/17

R4140-4A

**Delivery date** 2018/06/04

4963

**Your order N°** 39927

2 X 6'

**Processed by** Eric Kahlert

LINE#6

**Salesman**

AC16487-VA-2018-05-24  
Heat : B41492

**CARRIER**

**Credit Termes** Net 30 Days

**Page** 4

**Internal Use Only**

**Customer N°** CLI0001056

**Date** 2018/05/17

**Delivery date** 2018/06/04

**Your order N°** 39927

**Processed by** Eric Kahlert

**Salesman**

**CARRIER**

**Credit Termes** Net 30 Days

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**Page** 4

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**Customer N°** CLI0001056

**Date** 2018/05/17

**Delivery date** 2018/06/04

**Your order N°** 39927

40241  
**CERTIFICATE OF TEST**  
**CERTIFICAT D'ESAIIS**

16488 N

Page 01 of 02

Certification Date  
31-MAY-2018

**CUSTOMER ORDER NUMBER**  
NUMÉRO DE COMMANDE DU CLIENT

Invoice Number  
T380071

AC00016488

**PART NUMBER/NUMÉRO DE PIÈCE**

511235

**SOLD TO:** ACIER OUELLETTE INC.      **SHIP TO:** ACIER OUELLETTE INC.  
**VENDU À:** DIVISION SALABERRY DE VALLEYFIELD      **EXPIRED:** DIVISION SALABERRY DE VALLEYFIELD  
935, BOUL. DU HAVRE      935, BOUL. DU HAVRE  
SALABERRY-DE- VALLEYFIELD QC J6S 5L1 SALABERRY-DE- VALLEYFIELD QC J6S

Description: 303 CD ANN BAR ASTM A582  
1 X 2 FLAT X 12' R/L Line Total: 84 LB  
HEAT: 274196 ITEM: 511235

Specifications:

AMS 5640 TYPE 1 V      ASTM A582 12      ASME SA320 15  
ASTM A314 15      ASTM A320 17A      ASTM A370 17  
MIL S 862 B      QQ S 764 B

CHEMICAL ANALYSIS

C	SI	MN	CR	MO	CU	NI	CO
0.038	0.33	1.68	17.42	0.5300	0.49	8.10	0.1440
P	S	ZR					
0.032	0.31	0.004					

RCPT: R449030

COUNTRY OF ORIGIN : ITALY

MECHANICAL PROPERTIES

DESCRIPTION	YLD STR KSI	ULT TEN KSI	%ELONG IN 02 IN	%RED IN AREA	HARDNESS BHN
	64.0	98.0	46.0	58.0	204

GRAIN SIZE : 5 -

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

*Jeanne Després*  
JOANNE DESPRÉS

MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

# CERTIFICATE OF TEST CERTIFICAT D'ESAI

Page 02 of 02

Certification Date  
31-MAY-2018

CUSTOMER ORDER NUMBER  
NUMÉRO DE COMMANDE DU CLIENT  
AC00016488

Invoice Number  
T380071

PART NUMBER/NUMÉRO DE PIÈCE  
511235

SOLD TO:	ACIER OUELLETTE INC.	SHIP TO:	ACIER OUELLETTE INC.
VENDU À:	DIVISION SALABERRY DE VALLEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6S 5L1	EXPÉDIÉ À:	DIVISION SALABERRY DE VALLEYFIELD 935, BOUL. DU HAVRE SALABERRY-DE- VALLEYFIELD QC J6S 5L1
Description:	303 CD ANN BAR ASTM A582 1 X 2 FLAT X 12' R/L	Line Total:	84 LB
HEAT:	274196	ITEM:	511235

MATERIAL IS FREE FROM MERCURY CONTAMINATION  
NO WELD REPAIR PERFORMED ON MATERIAL  
THERMAL TREATMENT: OK  
ANNEALING 1940F .5 HR  
WATER  
MACRO: OK  
MICRO1: OK

---

The above data were transcribed from the manufacturer's Certificate of Test after verification for completeness and specification requirements of the information on the certificate. All test results remain on file subject to examination. /Les informations ci-haut-mentionnées sont transcris du certificat d'essais du manufacturier après vérification de l'état complet des spécifications inscrites sur le certificat. We hereby certify that the material covered by this report will meet the applicable requirements described herein, including any specification forming a part of the description. /Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

The willful recording of false, fictitious, or fraudulent statements in connection with test results may be punishable as a felony under federal statutes. /Les informations fausses, fictives ou frauduleuses en rapport avec le résultat des essais sont punissables en vertu des lois fédérales.

Material did not come in contact with mercury while in our possession./Par les présentes, nous certifions que le matériel couvert par ce rapport rencontre les spécifications décrites ci-haut.

JOANNE DESPRES



MANAGER QUALITY ASSURANCE  
GÉRANT DE L'ASSURANCE QUALITÉ

Part  
16486 N

**Chemical certification**  
**Certification chimique**

Tél.: 514-7

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>52</b>	Country of origin / Pay d'origine <b>CHINA</b>	Date <b>11/16/17</b>	Heat / coulée <b>C703742</b>	Material ID # / No. matière
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>1.000</b>	Specifications <b>ASTM A829, ASTM A578 CLASS A</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.400</b>	<b>0.230</b>	<b>0.910</b>	<b>0.020</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.003</b>	<b>1.040</b>	<b>0.000</b>	<b>0.200</b>
Cooper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

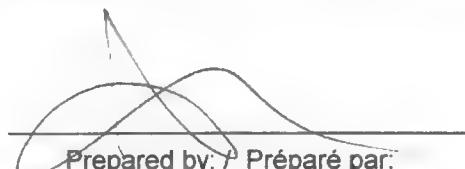
**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>695.000</b>	<b>PSI</b>	<b>895.000</b>	<b>PSI</b>	<b>16.00</b>	<b>42.00</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut ont été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.



Prepared by: / Préparé par:

90241

**Chemical certification  
Certification chimique**

16486 N.

Dant

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>12/30/17</b>	Heat / Lame <b>303186</b>	Material ID # / No. matière
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED; E + VD</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>2.750</b>	Specifications <b>ASTM A829/A829M</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.404</b>	<b>0.209</b>	<b>0.805</b>	<b>0.007</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.000</b>	<b>0.960</b>	<b>0.110</b>	<b>0.180</b>
Cooper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0090 / 0.0190	0.0000 / 0.0000
Actuel % <b>0.200</b>	<b>0.037</b>	<b>0.018</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>0.000</b>	<b>PSI</b>	<b>0.000</b>	<b>PSI</b>	<b>0.00</b>	<b>0.00</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut ont été vérifier et sont conformes d'après un certificat original qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

Dant

Chemical certification  
Certification chimique

164861

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>04/28/17</b>	Heat / coulée <b>300188</b>	Material ID # / No. matière
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED; Q&amp;T E+VD</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>1.250</b>	Specification <b>ASTM A829/A829M</b>			

Chemical composition / Analyse chimique

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % 0.400	0.227	0.814	0.008
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % 0.001	0.970	0.240	0.170
Cooper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % 0.178	0.035	0.025	0.000
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % 0.000	0.000	0.000	0.000

Mechanical properties / Propriétés Mécaniques

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
0.000	PSI	0.000	PSI	0.00	0.00

Note:

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut ont été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.

Prepared by: / Préparé par:

*10241*  
*Part*  
**Chemical certification  
Certification chimique**

*16486 N*

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>12/30/17</b>	Heat / coulée <b>302967</b>	Material ID # / No. matériel
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREATED; E + VD</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>2.250</b>	Specifications <b>ASTM A829/A829M</b>			

**Chemical composition / Analyse chimique**

Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi 0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel % <b>0.418</b>	<b>0.254</b>	<b>0.752</b>	<b>0.007</b>
Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi 0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel % <b>0.000</b>	<b>0.990</b>	<b>0.120</b>	<b>0.160</b>
Cooper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi 0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.250</b>	<b>0.031</b>	<b>0.030</b>	<b>0.000</b>
Cobalt (Co)	Titanium (Ti)		
Mini / maxi 0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel % <b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

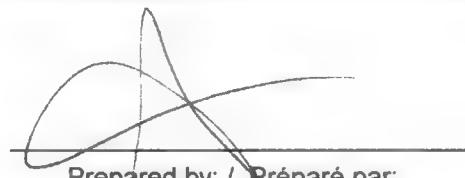
**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>0.000</b>	<b>PSI</b>	<b>0.000</b>	<b>PSI</b>	<b>0.00</b>	<b>0.00</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut ont été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.



Prepared by: / Préparé par:

*9034*  
*Dat*

**Chemical certification  
Certification chimique**

*16486 N*

Order Num / No. Commande <b>AC-16486</b>	Vendor / Fournisseur <b>46</b>	Country of origin / Pay d'origine <b>SLOVENIA</b>	Date <b>01/25/17</b>	Heat / Soudée <b>298132</b>	Material ID # / No. matériel
Grade / Nuance <b>4140 PLT</b>	Conditions <b>HEAT TREAT</b>				
Shape / Forme <b>PLT</b>	Size / Dimension <b>0.375</b>	Specifications <b>ASTM A829 / 8829M</b>			

**Chemical composition / Analyse chimique**

	Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)
Mini / maxi	0.3700 / 0.4400	0.1500 / 0.3500	0.6500 / 1.1000	0.0100 / 0.0190
Actuel %	<b>0.427</b>	<b>0.248</b>	<b>0.785</b>	<b>0.006</b>
	Sulphur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)
Mini / maxi	0.0200 / 0.0400	0.7500 / 1.2000	0.1000 / 0.2000	0.1500 / 0.2500
Actuel %	<b>0.001</b>	<b>0.970</b>	<b>0.250</b>	<b>0.190</b>
	Cooper (Cu)	Vanadium (V)	Aluminum (Al)	Tungsten (W)
Mini / maxi	0.1900 / 0.2900	0.0400 / 0.0500	0.0000 / 0.0000	0.0000 / 0.0000
Actuel %	<b>0.136</b>	<b>0.036</b>	<b>0.027</b>	<b>0.000</b>
	Cobalt (Co)	Titanium (Ti)		
Mini / maxi	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000	0.0000 / 0.0000
Actuel %	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>

**Mechanical properties / Propriétés Mécaniques**

Yield strenght / Élasticité	Tensile / Rés. à la traction	Elongation / Allon. (%)	Red. of area / Surface (%)	RC	Surface Hd / Dureté
<b>0.000</b>	<b>PSI</b>	<b>0.000</b>	<b>PSI</b>	<b>0.00</b>	<b>0.00</b>

**Note:**

We certify that the above data has been verified and are conform to an original mill or supplier certificate supplied to us with the material

Nous certifions que les données ci haut ont été vérifier et sont conformes d'après un certificat originale qui nous a été fourni par notre fournisseur.



Prepared by: / Préparé par:

90241

Dart.

16487 N:

## CERTIFICATE OF COMPLIANCE / CERTIFICAT DE CONFORMITÉ

Order No. / No. Commande <b>AC00016487</b>	CUSTOMER / CLIENT <b>ACIER OUELLETTE INC</b>	Packing slip / No. d'expédition <b>L42943-01</b>	DATE <b>23-05-18</b>
MATERIAL ID# / No. MATERIEL <b>18-1045/1081</b>	GRADE / NUANCE <b>4140</b>	HEAT TREATMENT / TRAITEMENT THERMIQUE <b>ANNEALED / RECIUT ADOUCI</b>	HEAT / COUILLÉE <b>B41492</b>
PAYS D'ORIGINE: <b>UKRAINE</b>			
SHAPE / FORME <b>Round / Rond</b>	SIZE / DIMENSION <b>4.000" in.</b>	SPECIFICATIONS	
			<b>ASTM A 322,A 29/A 29M,A 751,A 304</b>

CHEMICAL COMPOSITION / ANALYSE CHIMIQUE						
	Carbon (C)	Silicon (Si)	Manganese (Mn)	Phosphorus (P)		
mini/maxi	0.380	0.430	0.150	0.350	0.750	1.000
actuel (%):	<b>0.420</b>	<b>0.250</b>		<b>0.830</b>		<b>0.014</b>
	Sulfur (S)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)		
mini/maxi	0.040	0.800	1.100	0.000	0.250	0.150
actuel (%):	<b>0.020</b>	<b>0.920</b>	<b>0.100</b>		<b>0.210</b>	
	Copper (Cu)	Vanadium (V)	Aluminium (Al)	Tungsten (T)		
mini/maxi	0.350	---	---	---	---	---
actuel (%):	<b>0.130</b>	<b>0.010</b>	<b>0.033</b>		<b>0.000</b>	

MECHANICAL PROPERTIES / PROPRIÉTÉS MÉCANIQUES				
Yield strength / Élasticité	Tensile / résistance à la traction	Elongation / allongement (%)	Reduction of area / surface (%)	surface hd / dureté
PSI	PSI	.	.	<b>180 BHN</b>

TESTS JOMINY / JOMINY RESULTS							
J	HRC	J	HRC	J	HRC	J	HRC
01	<b>57</b>	07	<b>55.1</b>	13	<b>48.5</b>	22	<b>43.4</b>
02	<b>56.8</b>	08	<b>54.2</b>	14	<b>48</b>	24	<b>42</b>
03	<b>56.5</b>	09	<b>53</b>	15	<b>46</b>	26	<b>38.5</b>
04	<b>56.5</b>	10	<b>49.2</b>	16	<b>45.1</b>	28	<b>38</b>
05	<b>56</b>	11	<b>49</b>	18	<b>44.2</b>	30	<b>37.2</b>
06	<b>56</b>	12	<b>48.7</b>	20	<b>43.5</b>	32	<b>36</b>

No weld repairs performed during the manufacturing of this product. We hereby certify that the above results have been verified and conform to the above mentioned specifications. Material is Mercury free, without radioactivity.

Aucune réparation exécutée par soudure durant la fabrication de ce produit. Par la présente nous attestons que les résultats ci-haut mentionnés ont été vérifiés et sont conformes aux spécifications. Pas de contact au Mercure, sans radioactivité.

Keith BALL - Branch Manager

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: mt-4140-s-0.375x4.500 PO / BATCH NO.: 039927/5077657  
 DATE: JUN 04 2018

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 12  
 QUANTITY INSPECTED: 12  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375  
 THICKNESS RECEIVED: 0.375  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Asm A809</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Heat # 298132</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY:	<u>DAS</u>	SIGNED OFF BY:	
DATE:	<u>11 JUN 04 2018</u>	DATE:	

**Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in**

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	16-544	18.2.13	VM	ML
1					
2					
3					
4					
5					
6					
7					
8					

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
MINIMUM ROCKWELL C = 28 RC  
MAXIMUM ROCKWELL C = 32 RC

SPECIFICATION.

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THE CRIMINAL

MT-140-S(T,TT) x [W,WWW]  
WHERE "T,TT" = THICKNESS IN INCHES  
WHERE "W,WWW" = WIDTH IN INCHES (OR

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 3.5" WIDE BY 500" THICK PLATE = MT-4140 S 0.063X3 500

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MH-2140-S-2.250X3.00 PO / BATCH NO.: 039927/5077656  
 DATE: JUN 04 2018

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.250  
 THICKNESS RECEIVED: 2.250  
 SHEET SIZE ORDERED: 1/4A  
 SHEET SIZE RECEIVED: 1/4A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	A57m A829
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	that # 303967
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC IS INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-89 JUN 04 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
 MINIMUM ROCKWELL C = 28 Rc  
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION:

ASTM A829, AMS 6395

PART NUMBER:

MT-4140-S-[T][TT]x[W][WWW]  
 WHERE "T" = THICKNESS IN INCHES  
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063

EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	18-544	18.2.13	VM	MI

D	C	B	A
1	2	3	4
5	6	7	8
6	5	4	3
7	8	1	2
8	7	6	5
9	10	11	12

**DAR**  
**AEROSPACE** Handley Ondrej, Canada

**MT-4140 / 4142 STEEL SHEET OR PLATE**

**Part No** **MT-4140-S** Rev A

**102. NO**

Unless otherwise specified  
DIMENSIONS ARE IN INCHES &  
UNLESS OTHERWISE STATED,  
DIMENSIONS APPLY AFTER PIANISHING

**INITIALS AND DATE**

DESIGNED BY: VN/21/3/2018 To LANCES.  
 DRAWN BY: VN/02/1/2018 XXXX ± .005.  
 CHECKED BY: VN/02/1/2018 XXX ± .015.  
 MFG REVIEW BY: VN/02/1/2018 ANGLES: 2.5°  
 APPROVED BY: DOD/1/4/2018 S.1  
**REMARKS**

1. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 2. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 3. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 4. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 5. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 6. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 7. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 8. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 9. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.  
 10. INDICATE ALL SPOTS OF INEQUALITY IN THE DRAWINGS.

# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M303B1.000X2.000

PO / BATCH NO.: 039927/5071653

DATE: JUN 04 2018

MATERIAL CERT REC'D: Yes  
 QUANTITY RECEIVED: 13  
 QUANTITY INSPECTED: 13  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: 1111  
 SHEET SIZE RECEIVED: 1111

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Astm A582</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Heat # 271196</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>11</u>	SIGNED OFF BY: _____	
DATE: <u>JUN 04 2018</u>	DATE:	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI 303 SS BAR  
(NOTE: AISI 303 & 316 NOT ACCEPTABLE)

SPECIFICATION: ASTM A582  
PART NUMBER: 303BTTT

WHERE "T.TTT" = THICKNESS IN INCHES  
AND "WW.WWWW" = WIDTH IN INCHES  
EG. 9.5" x 3.0" BAR = M303B0.500X03.000

EG. 0.5" x 3.0" BAR = M303B0.500X03.000

RELEASED  
2010-02-02

B	REFORMAT DING. ADD SPEC'S (ZN DB-1). REF PAR 08-020A	CP	10 01 05
A	NEW ISSUE	DS	02 05 29
REV	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWTHORPE, ONTARIO, CANADA	REV B
CHECKED		DRAWING NO	SHEET 1 OF 1
MFG. APPR.		M303B	SCALE
APPROVED		TITLE	NITS
DE APPR.		303 BAR	
DATE	10.01.05	COPYRIGHT © 2002 BY DART AEROSPACE LTD ALL RIGHTS RESERVED. THIS DRAWING IS THE PROPERTY OF DART AEROSPACE LTD. IT IS TO BE KEPT CONFIDENTIAL AND NOT COPIED OR DISCLOSED WITHOUT THE WRITTEN CONSENT OF DART AEROSPACE LTD.	

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## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-41405-1.250X2.000

PO / BATCH NO.: 038927/5077654

DATE: JUN 04 2018

MATERIAL CERT REC'D: Y  
 QUANTITY RECEIVED: 6  
 QUANTITY INSPECTED: 6  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250  
 THICKNESS RECEIVED: 1.250  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Astm A809</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Heat # 300188</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-89 JUN 04 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

		REV	1	2	3	4	5	6	7
A									

PURCHASE MATERIAL: AISI 4140 / 4142 STEEL SHEET OR PLATE  
 MINIMUM ROCKWELL C = 28 Rc  
 MAXIMUM ROCKWELL C = 32 Rc

SPECIFICATION:

ASTM A829, AMS 6395

PART NUMBER:

MT-4140-S-[T][T][T] x [W][W][W]  
 WHERE "T" = THICKNESS IN INCHES  
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063

EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

1	2	3	4	5	6	7	8
REV	ECN #	DATE	BY	APPROVED	VM	ML	D
A	NEW ISSUE	18-544	18-2-13		VM	ML	C

DART		AeroSpace Frametech, Ontario, Canada
Title	Part No.	
AISI 4140 / 4142 STEEL SHEET OR PLATE	MT-4140-S	REV A
Part No. <b>MT-4140-S</b>		
Tool No.		
Initials & Otherwhere Specified		
Dimensions are in inches Dimensions are in millimeters Dimensions are in millimeters		
INITIALS AND DATE		
DESIGNED BY:	VM 2/1/2018	
DRAWN BY:	VM 02/1/2018	YOLK
CHECKED BY:	VM 02/1/2018	FRACTION: 2 1/2 ANGLES: 2 1/2 SURFACE: 2 1/2
MQ REVIEW BY:	DD 02/1/2018	
APPROVED BY:	ML 02/1/2018	SCALE: NTS
SHEET 1 OF 1		
Copyright © 2018 by DART AeroSpace LTD. Two copies of this drawing are required for each part number. Drawing No. 1 is to be used for production and the second copy is to be used for inspection. Any changes made to the drawing must be made on the second copy. The first copy must be kept in the original form and must not be altered.		

1	2	3	4	5	6	7	8
B							
A							

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: Mt-4140-S-2.750x5000 PO / BATCH NO.: 039927/5077653  
 DATE: JUN 04 2018

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 12'  
 QUANTITY INSPECTED: 12'  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 2.750  
 THICKNESS RECEIVED: 2.750  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>Astm A829</i>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
PHOTO REQUIRED	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<i>Heat # 303186</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-89 JUN 04 2018</u>	DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
 MINIMUM ROCKWELL C = 28 RC  
 MAXIMUM ROCKWELL C = 32 RC

SPECIFICATION:

ASTM A829, AMS 6395

MT-4140-S-[T][TT] x [W][WWW]  
 WHERE "T" = THICKNESS IN INCHES  
 WHERE "W.WWW" = WIDTH IN INCHES (OPTIONAL FOR SPECIFYING CUT PLATE)

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
 EX. 3.5" WIDE BY 0.500" THICK PLATE = MT-4140-S-0.500X3.500

A	REV	3	4	5	6	7	8
DESCRIPTION		1	2	3	4	5	6
NEW ISSUE		ECN #	DATE	BY	APPROVED		
		18-544	18-2-13	V/M	M/L		

D

C

B

A

DART		Aerospace, Inc., Ontario, Canada	
TITLE			
AISI 4140 / 4142 STEEL SHEET OR PLATE			
PART NO.	REV		
MT-4140-S	A		
TDL NO.			
UNLESS OTHERWISE SPECIFIED, INTERPRETER AND VITRICAL 845-2009 DIMENSIONS APPLY AFTER MACHINING			
INITIALS AND DATE			
DESIGNED BY:	V/M 2/13/2018	TOLERANCES	
DRAWN BY:	V/M 02/13/2018	FRACTIONS: $\frac{1}{16}$	
CHECKED BY:	V/M 02/13/2018	X	
MAILED REVIEW BY:	DD 02/13/2018	X	
APPROVED BY:	ML 02/14/2018	X	
SCALE: NTS			
SHEET 1 OF 1			
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1

2

3

4

5

6

7

8

B

A

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: mt-4140-R4.000  
 DATE: JUN 04 2018

PO / BATCH NO.: 038927/5077652

MATERIAL CERT REC'D: yes  
 QUANTITY RECEIVED: 12  
 QUANTITY INSPECTED: 12  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 4.000  
 THICKNESS RECEIVED: 4.000  
 SHEET SIZE ORDERED: A3/A  
 SHEET SIZE RECEIVED: A3/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Astan A89</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Hooton B74 B41492</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u>	SIGNED OFF BY: _____
DATE: <u>9-8-18 JUN 04 2018</u>	DATE: _____

**Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in**

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : AISI 4140 ROUND BAR  
MINIMUM ROCKWELL C = 20 Rc  
MAXIMUM ROCKWELL C = 38 Rc

SPECIFICATION: *ASTM A29, AMS 6349, AMS 6529*

PART NUMBER: MT-4140-R-[D,DDD]  
WHERE "D,DDD" = DIAMETER IN INCHES  
EX. 4" ROUND BAR = MT-4140-R-4.000

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-790	17.12.13	VM	ML

D C B A

**DART**  
AEROSPACE  
Headquarters, Ontario, Canada

**AISI 4140 ROUND BAR**

REV. A

TOOL NO.	MT-4140-R	REV.	A
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES. CONVERSIONS ARE IN THE BASE CLOUDING IS APPLIED AFTER PUBLISHING			
DESIGNED BY:	VIA 17/12/2013	INITIALS AND DATE	
DRAWN BY:	VIA 12/13/2013	TOE RANGES:	
CHECKED BY:	ML 12/19/2013	FRACTIONS: 1/16 XX 1/32 1/64 ANGLES: 2.5° SQUARES: X RIGHTANGLES: X	
MFG REVIEW BY:	DP 12/20/2013		
APPROVED BY:	ML 12/20/2013	SCALE: 1:1 CP 1	
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1 2 3 4 5 6 7 8

## MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-4140-B-1000X1000  
 DATE: JUN 04 2018

PO / BATCH NO.: 039927/3077651  
3077677

MATERIAL CERT REC'D: YES  
 QUANTITY RECEIVED: 241  
 QUANTITY INSPECTED: 241  
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000  
 THICKNESS RECEIVED: 1.000  
 SHEET SIZE ORDERED: N/A  
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT FINISH	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORROSION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT GRAIN DIRECTION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT MATERIAL PER M-DRAWING	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Astan A829</i>
CORRECT THICKNESS	<input checked="" type="radio"/> Y <input type="radio"/> N	
PHOTO REQUIRED	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT REF # TO LINK CERT	<input checked="" type="radio"/> Y <input type="radio"/> N	<i>Heat# C703742</i>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="radio"/> Y <input type="radio"/> N	
CORRECT M# ON THE MATERIAL	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	<input checked="" type="radio"/> Y <input type="radio"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	<input checked="" type="radio"/> Y <input type="radio"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

*testers located in the Quality Office*

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89 JUN 04 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

## SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : / AISI 4140 / 4142 STEEL SHEET OR PLATE  
/ MINIMUM ROCKWELL C = 28 RC  
/ MAXIMUM ROCKWELL C = 32 RC

SPECIFICATION

PART THREE

IAL : AISI 4140 / 4142 STEEL SHEET OR PLATE  
MINIMUM ROCKWELL C = 28 RC  
MAXIMUM ROCKWELL C = 32 RC

ASTM A829, AMS 6395

MT-4140-S-[TTT]x[W,WWW]  
WHERE "TTT" = THICKNESS IN INCHES  
WHERE "W,WWW" = WIDTH IN INCHES

EX. 0.063" THICK SHEET = MT-4140-S-0.063  
EX. 0.125" THICK SHEET = MT-4140-S-0.125

1	2	3	4	5	6	7	8
	REV.	DESCRIPTION		ECN #	DATE	BY	APPROVED
	A	NEW ISSUE		1B-544	18.2.13	VM	ML



TITLE		REV	
ALISI 4140 / 4142 STEEL SHEET OR PLATE		A	
PART NO.	MT-4140-S		
TECH. DNO.			
UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE AS PER ASME Y14.5M-2005 DIMENSIONS ARE INCHES TOLERANCES ARE IN INCHES DRAWINGS ARE FOR INFORMATION ONLY. NOTES ARE FOR INFORMATION ONLY. NOTES ARE FOR INFORMATION ONLY.			
DESIGNED BY:	INITIALS AND DATE	DIMENSIONS:	
DRAWN BY:	VM 02/13/2018	ANGLES: & .15"	
CHECKED BY:	VM 02/13/2018	ROUGHNESS: & .15"	
MFG REVIEW BY:	DD 02/13/2018		
APPROVED BY:	ML 02/13/2018		
BREAKAWAYS: SHEET 1 OF 1			
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